This product manual contains important information about the safe installation and use of this product.Please read and follow these instruction carefully and keep this manual in a safe place for future reference.

Security Warning

When unpacking and before disposing of the carton, check if there is any transportation damage before using the product.Should there be any damage caused by transportation,consult your dealer and do not use the apparatus.

- This equipment is not waterproof, keep it from rain, moisture and liquids.
- Do not install the product or project the beam onto inflammable surfaces. Minimum distance is 5 M.
- The product is only intended for installation, operation and maintenance by
- qualified personnel.
- Product should install in a cool place. Keep away from the wall 50cm
- Avoid direct exposure to the light from the lamp.The light is harmful to eyes
- Keep the optical system clean.Do not touch the laser reflect lens with bare hands.Do

not use any alcohol liquid or any other liquit to clean the optical system.Use medicinal absorbent cotton to clean it.

- ❖ Please do not attempt to dismantle and/or modify the product inner structure.Otherwise,would not provide 1 year of free warranty.
- ❖ Electrical connection must only be carried out by qualified personnel.
- ❖ Before installation,ensure that the voltage and frequency of power supply match the power requirement of the product.
- ❖ It is essential that each product is correctly earthed and that electrical installation
- ❖ conforms to all relevant standards.
- ❖ Do not connect this device to any other types of dimmer apparatus.
- ❖ Make sure that the power-cord is never crimped or damaged by sharp edges. Never let the power-cord come into contact with other cables.Only handle the power-cord by the plug.Never pull out the plug by tugging the power-cord
- ❖ There is no user serviceable parts inside the product,do not open the housing and never operate the product with the cover removed.

If you have any questions,don't hesitate to consult our dealer or manufacturer.

Oligo laser projector adopts embedded technology which enable laser moving,scaling,rotating,turn spin and gradually draw,animation,text,broken pen,wave laser effect can be achieved easily.

Unique functions as following:

1. Through DMX-512 Controller,you can select auto or sound control mode or to play built-in laser effects.

2.Through menu to set up scanner speed,laser color,X opposition,Y opposition

3.Unique sound control technology.Laser effect can response according to sound rhythm.

The second channel for three colors instructions :

Blank and Laser off	0~5	Laser off
	6~15	Red
	16~25	Green
	26~35	Yellow
	36~105	single color(random), values 105 is the fastest speed
	106~175	3 color(random), values 175 is the fastest speed
	176~245	Flow color, values 245 is the fastest speed
	246~255	default color

The second channel for seven colors instruction :

Blank /laser off	0~5	Laser off
	6~10	White
	11~15	Red
	16~20	Yellow
	21~25	Green
	26~30	Cyan
	31~35	Blue
	36~40	Violet
	41~110	single color(random), values 110 is the fastest speed
	111~180	7 color(random), values 180 is the fastest speed
	181~250	Flow color, values 250 is the fastest speed
	251~255	default color

Product technical parameters

Item NO: Oligo

1.Voltage:AC90~240V 50~60HZ±10%

2.Power consumption:80W

3.Laser source:Solid semi-conductor laser diode.

4.Laser power /wavelength: 1x 450mW Red (638nm)
1x 120 mW Green (520nm)
1 x 1000mW Blue (445nm)

5.Colors:RGB full color

6.Modulating signal: 0~30K Analogue

7.Laser Patterns:256 pieces built-in laser patterns

8.DMX Channel:12CH

9.Scanner system: 30 kpps

10.Control signal:DMX-512 international standard signal

11.Control mode:Music,auto,master-slave and DMX-512l,ILDA Control

12.Cooling system:fan

13.Operation environement :Indoor

14.Operation temperature:-10°C～40°C

15. Net Weight : 5.5 kg

16.Dimension Size : 300*150*152 mm

The Second channel for single color instruction :

DMX Channel Chart 12 CHS :

Channel	DMX 512 Figure	Control Function
	0~49	Music Trigger

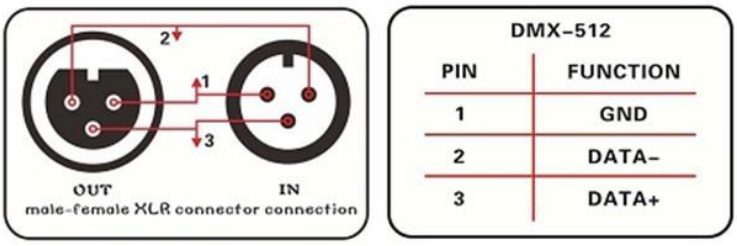
1.Mode Select	0--49	Music trigger
	50--99	Auto trigger（Beam）
	100--149	Auto trigger（Pattern）
	160--199	Manual mode，Music trigger
	200--255	Auto mode
2. Blank /Laser off	0--255	Single color (laser off-No blank- Flow blank-Strobe blank-- Default color---
	0--255	3color (laser off—red—green--yellow--Default color—single color(random)—3 color(random)-Flow blank-default color)
3 . Pattern select	0--255	Max 256 pieces Patterns
4 X-axis movement	0--127	Manual movement
	128--191	Auto Move Down, The moving speed of the plunger proportional to the value
	192--255	Auto Move Up, The moving speed of the plunger proportional to the value
5..Y-axis Movement	0--127	Manual movement
	128--191	Auto Move Right, The moving speed of the plunger proportional to the value
	192--255	Auto Move Left, The moving speed of the plunger proportional to the value
6 X- axis rotation	0--127	Manual movement
	128--255	Auto rotate, The speed of the plunger proportional to the value
7.Y- axis rotation	0--127	Manual movement
	128--255	Auto rotate, The speed of the plunger proportional to the value
8 .Pattern rotation	0--127	Manual movement
	128--191	Clockwise motion, The speed of the plunger proportional to the value
	192--255	Counterclockwise motion, The speed of the plunger proportional to the value
9 .Zoom	0--85	Pattern from small to larger, The speed of the plunger proportional to the value
	86--170	Pattern from larger to small , The speed of the plunger proportional to the value
	171--255	Auto loop zoom, The speed of the plunger proportional to the value
10 .Pattern size	0--255	0—Default size,1-- Minimum size,255-- Maximum size
11.Dot display	0--255	❖ Dot not display,1—Dot Minimum brightness display 255—Dot Maximum brightness display
12.Slow draw	0--127	Auto Slow draw 1, The speed of the plunger proportional to the value
	128--255	Auto Slow draw 2, The speed of the plunger proportional to the value
Blank/Laser off	0~15	laser off
	16~25	no blank
	26~135	Color flow effect, values 135 is the fastest flow speed
	136~245	Strobe effect, values 245 is the fastest speed
	246~255	default blank

◆ Product packing list

These items are packed together with the lighting fixture. Upon unpack,please check：

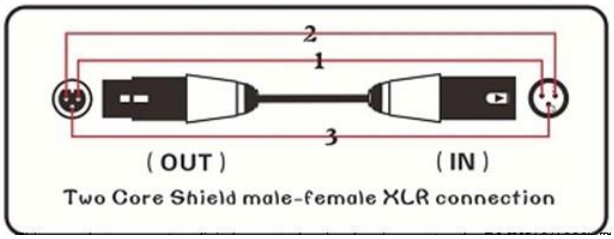
Laser light X 1 Set
Power cable X 1 Pcs
Product manual X 1 Pcs

DMX Connection method



DMX control signal connection must be made with a two core-screened cable,with each core having at least a 0.5mm diameter.Please use the product's signal cable OUT and IN as connection.The signal OUT and IN cables connection shown as above picture.

Note: Please do not connect the signal cable OUT and IN in other way except above shown.



This product accepts digital control signals in protocol DMX512(1990).The amount of lighting fixtures connected in parallel is no more than 32.Connect the DMX controller's Output to the first lighting fixture's Input cable with a 2 core XLR signal cable(Shown as above),connect the first lighting fixture's Output cable to the second lighting fixture's Input cable and connect the rest light fixtures in the same way.Eventually,connect the last lighting fixture's Output cable to a DMX terminator

Under DMX-512 signal control mode,the last lighting fixture's DMX Output must be connected with a DMX terminator.This prevents electrical noise from disturbing and corrupting the DMX control signals.The DMX terminator is simply an XLR connector with a 120(ohm) resistor connected across pins 2 and 3,which is then plugged into the output socket on the last projector in the chain.Then connections are illustrated above.

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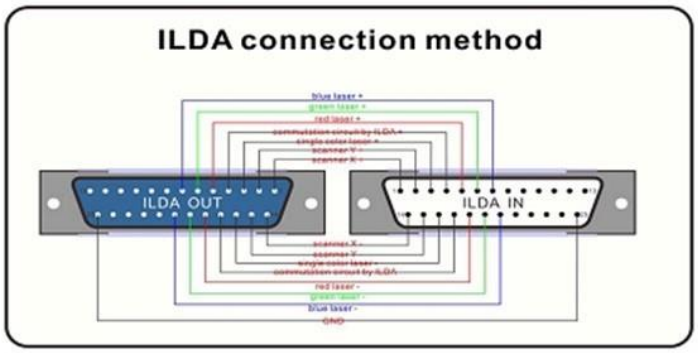

◆ **ILDA control signal connection method:**

Connection built through product male/female DB 25 degree socket.Like above picture. In addition to the above connections, ILDA signal cannot be connected in any other way.

ILDA control mode

Connect ILDA signal,the lighting fixtures will automatically switchover to ILDA working mode.This lighting fixtures' ILDA signal cable connection way is compliant to international standard.

DMX Channel Chart :

DIP switch: Address 1-10 Pin

1 ~ 10	Function
0,0,0,0,0,0,0,0,0,0	Sound Mode
1,0,0,0,0,0,0,0,0,0	Auto Mode
0,0,1,0,0,0,0,0,0,0	Slave Mode
1,1,0,0,0,0,0,0,0,0	Graphic Mode
x,x,x,x,x,x,x,x,x,1	DMX 512 Control

Maintenance

To prolong the life of the product,it is very important to do maintenance work.The environment is hash outdoors,or if the product is idle for a long time,damp,smoke or particularly dirty surroundings can cause greater accumulation of dirt on its cover and housing.So it should be cleaned to maintain an optimum light output and at the same time to prevent it from corrupted by acid gas.

Friendly notice:Do not use any organic solvent,e.g.alcohol to clean housing of the apparatus.

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Troubleshooting

Problems	Action
The product doesn't switch on	Power connection is not correct.Re-connect the power.
	Power supply is damaged or abnormal.Call a qualified personnel to fix it.
	Connection of control board is not correct.Call a qualified personnel to fix it.
The product can turn on,but no light coming out.	Control mode is wrongly setting up.Resetting it according to instruction book
	Control section is damaged.Call a qualified personnel to fix it.
The beam appears dim	The product is too hot.Take ventilation measures to make it cool.

Note: This product is under warranty for 1 year(From the date of delivery), 1 years after can provide paid maintenance services.But if it is because of natural disasters or user's operation not according to manual.We won't provide warranty.

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